

THREE-PHASE SYNCHRONOUS GENERATOR
MJB 355 SA 4
4 POLES
CONTINUOUS DUTY
50 Hz-1500 min⁻¹ / 60 Hz-1800 min⁻¹

AMBIENT TEMPERATURE	40°C	WINDING DATA	
TEMPERATURE RISE	H	Winding code	M0
INSULATION CLASS	H	Number of leads	12
POWER FACTOR	0,8	Winding pitch	2/3

FREQUENCY	Hz	50				60				
VOLTAGE	Star series Star parallel	V	380	400	415	440	380	416	440	460 480
RATING		kVA	490	510	510	510	510	540	570	610 625
		kW	392	408	408	408	408	432	456	488 500
EFFICIENCY (%) @ 0,8 p.f.	4/4		93,5	94,0	94,1	94,2	93,0	93,4	93,7	94,0 94,5
	3/4		94,4	94,6	94,7	94,7	93,9	94,0	94,4	94,6 94,9
	2/4		94,9	94,9	94,9	94,9	94,3	94,4	94,7	94,9 95,1
EFFICIENCY (%) @ 0,8 p.f.	4/4		94,8	95,3	95,3	95,4	94,5	94,7	95,0	95,3 95,7
	3/4		95,6	95,7	95,8	95,8	95,2	95,3	95,6	95,7 96,0
	2/4		96,0	96,0	96,0	96,0	95,5	95,6	95,8	96,0 96,1
SHORT CIRCUIT RATIO			0,33	0,35	0,38	0,42	0,26	0,30	0,32	0,32 0,34
REACTANCES (%)										
Direct axis synchronous	x _d		350	330	305	275	440	390	365	360 335
Quadrature axis synchronous	x _q		200	190	175	155	255	225	210	205 195
Direct axis transient	x' _d		28,7	27,0	25,1	22,3	35,9	31,7	29,9	29,3 27,6
Direct axis subtransient	x'' _d		16,4	15,4	14,3	12,7	20,5	18,1	17,1	16,7 15,7
Quadrature axis subtransient	x'' _q		18,6	17,5	16,3	14,5	23,3	20,6	19,4	19,0 17,9
Negative sequence	x ₂		17,5	16,4	15,2	13,6	21,8	19,3	18,2	17,8 16,7
Zero sequence	x ₀		4,4	4,1	3,8	3,4	5,5	4,8	4,5	4,4 4,2

TIME CONSTANTS [s]

Open circuit (T' _{do})	1,65	Subtransient (T'' _d)	0,015
Transient (T' _d)	0,135	Armature (T _a)	0,021

MECHANICAL CHARACTERISTICS

D-end bearing/Lubrication	6322 2RS C3 / Prelubricated
N-end bearing/Lubrication	6317 2RS C3 / Prelubricated
Weight (IM B34) [kg]	1250
Inertia (J) (IM B34) [kgm ²]	7,97
Overspeed [min ⁻¹]	2250
Method of cooling	IC 01
Cooling air required [m ³ /s] @ 50/60 Hz	0,93 / 1,12
Degree of protection	IP 23
Type of construction available	B2 - SAE / IM B34
Direction of rotation	CW

OTHER DATA

Phase resistance [mΩ] @ 20 °C - Star series	8,6
Overloads	10% for 1 hour
3-phase short circuit current	>= 300% (3 I _n)
Voltage regulation accuracy	+/- 0,5 % (in steady state condition, speed from -2% to +5%, p.f. from 0,8 to 1)
Radio interference	EN 55011 Class B Group 1
Wave form THF	< 2%
Total harmonic content	< 2% (at no load)

STANDARDS

IEC 60034-1; CEI 2-3; BS 4999-5000; VDE 0530; NF 51-100,111; OVE M-10, NEMA MG 1.22.

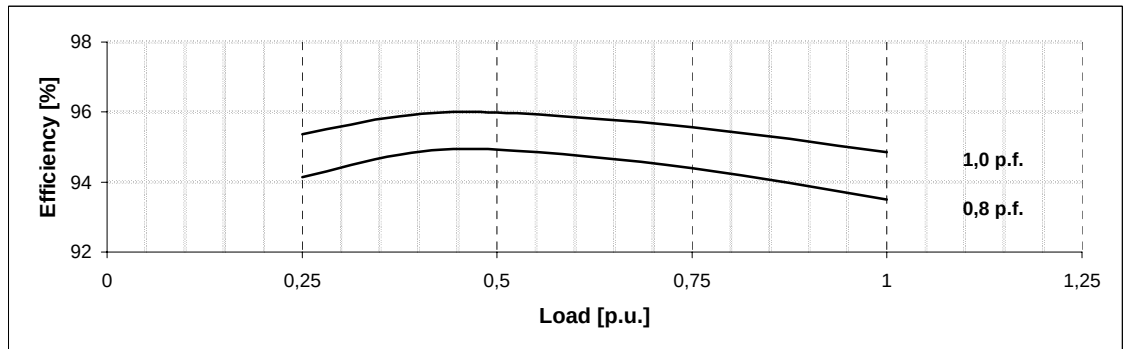
Data and Technical Specification are subject to change in order to update or improve the products, without prior notice

THREE-PHASE SYNCHRONOUS GENERATOR MJB 355 SA 4

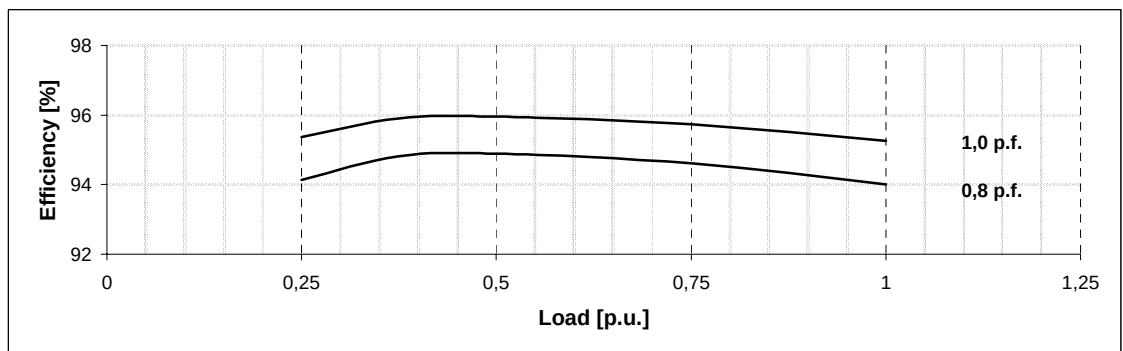
Typical efficiency curves

50 Hz - 1500 min⁻¹

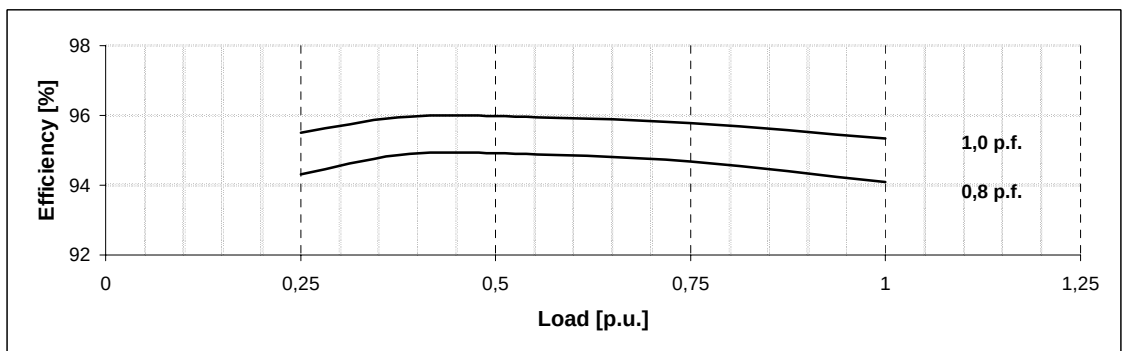
380 V



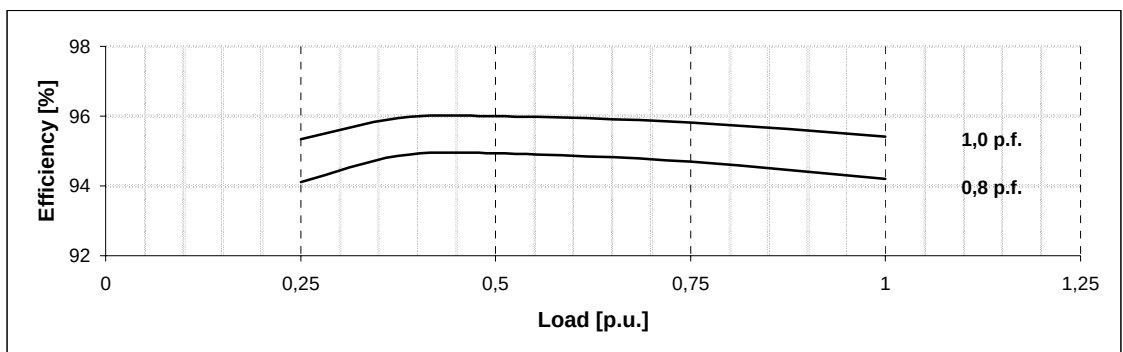
400 V



415 V



440 V



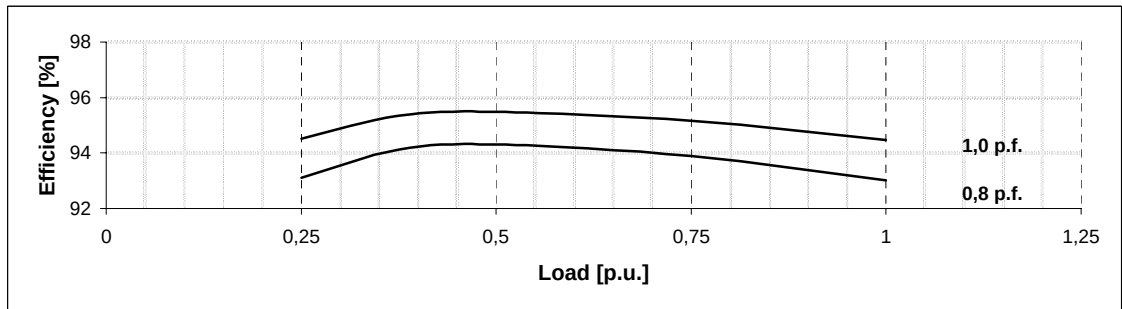
Data and Technical Specification are subject to change in order to update or improve the products, without prior notice

THREE-PHASE SYNCHRONOUS GENERATOR
MJB 355 SA 4

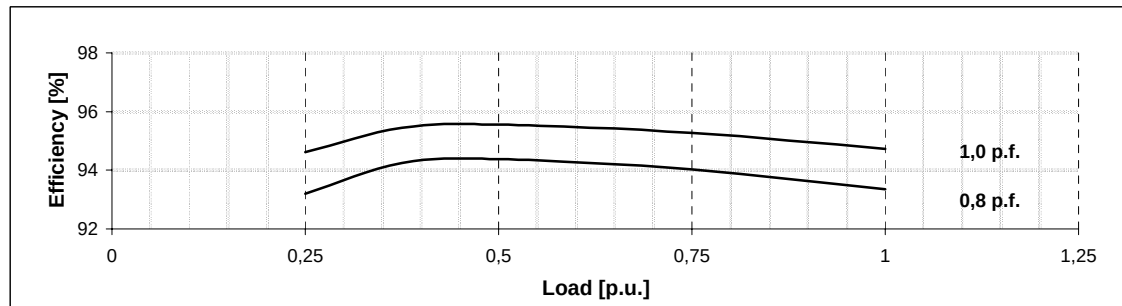
Typical efficiency curves

60 Hz - 1800 min⁻¹

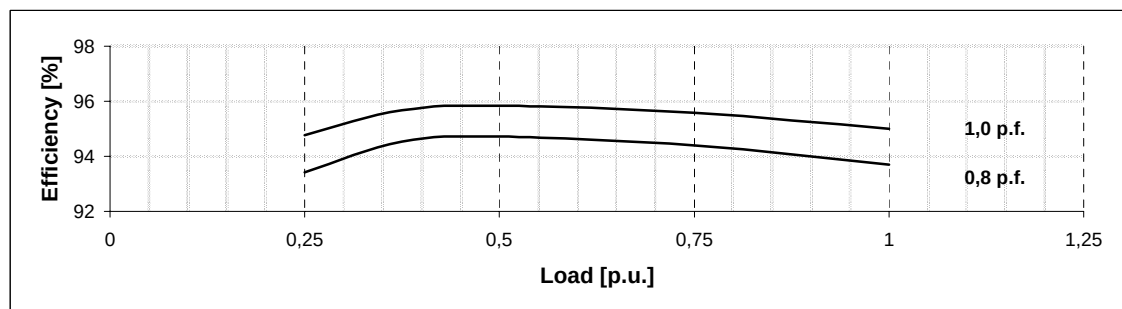
380 V



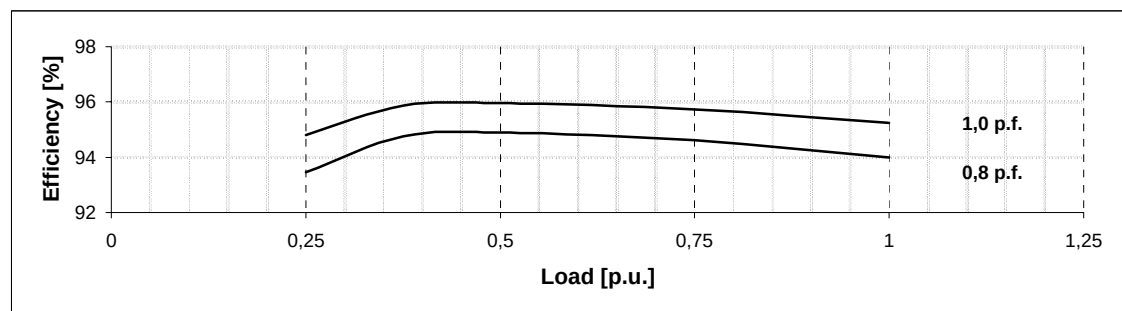
416 V



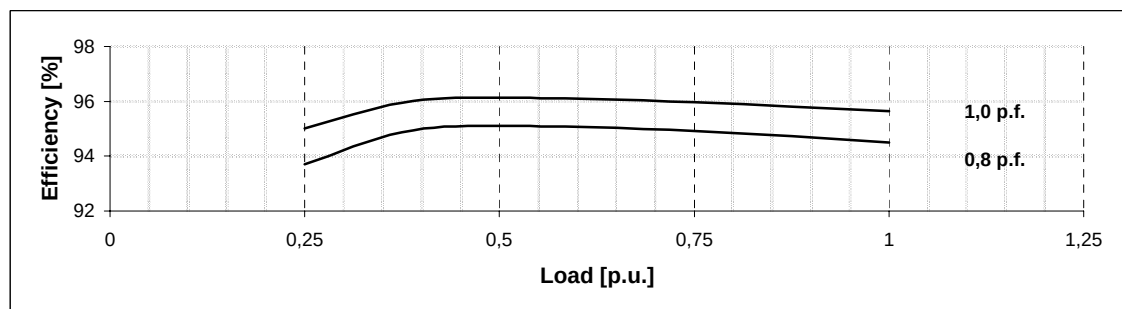
440 V



460 V



480 V

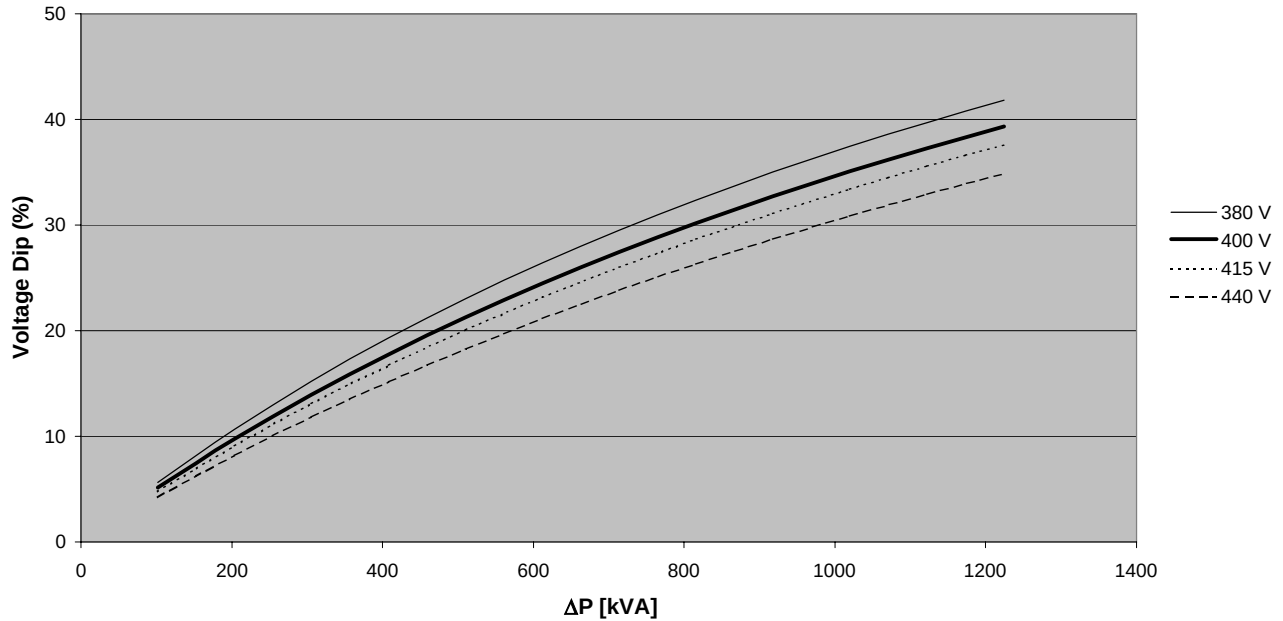


Data and Technical Specification are subject to change in order to update or improve the products, without prior notice

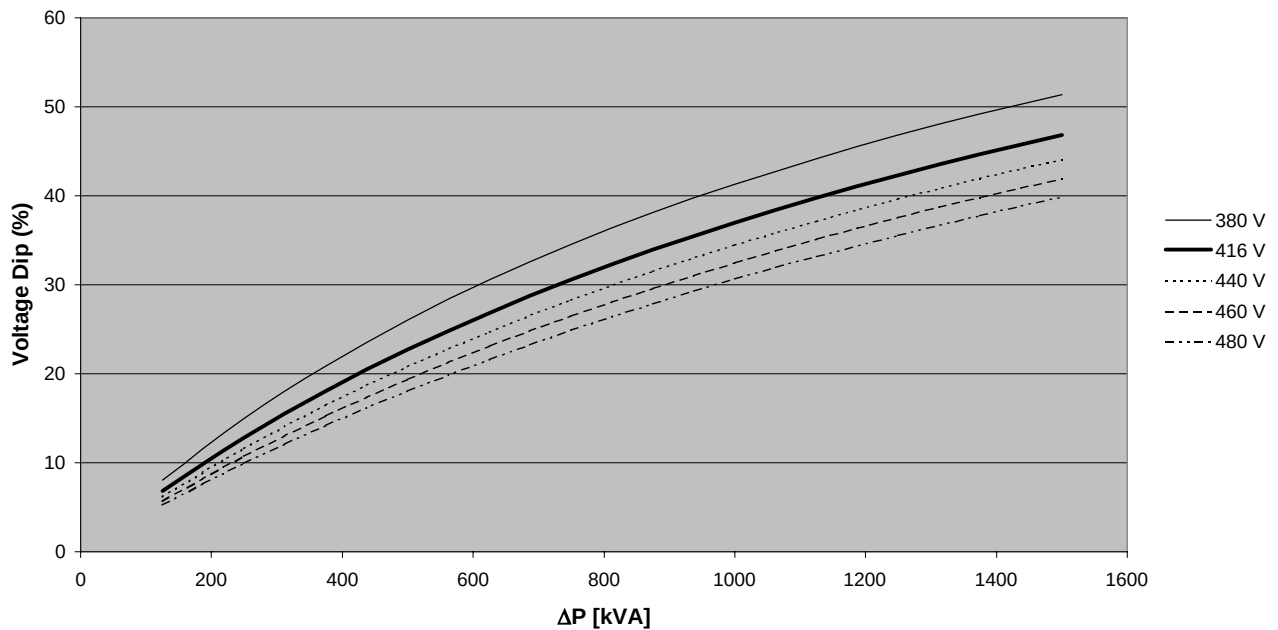
THREE-PHASE SYNCHRONOUS GENERATOR MJB 355 SA 4

Locked rotor motor starting curves (*)

50 Hz - 1500 min⁻¹



60 Hz - 1800 min⁻¹



$$\Delta P = P_n \times (I_s / I_n) / (\cos\varphi_n \times \eta_n)$$

(*): A coefficient of 0,85 must be applied to the voltage dip if the load has a power factor equal or greater than 0,9

Data and Technical Specification are subject to change in order to update or improve the products, without prior notice